ABSTRACT OF THE DISCLOSURE

A composition comprising, in a physiologically acceptable medium, at least one film-forming polymer and at least one thermal transition agent which undergoes a change of state at a transition temperature Tt chosen within a temperature range from 25°C to 80°C, the at least one thermal transition agent being insoluble in water maintained at a temperature below the transition temperature, Tt, the at least one film-forming polymer and the at least one thermal transition agent are present in an amount which is sufficient so that the composition is capable of forming a film at the temperature of a keratinous material to which the composition is applied, wherein the film has a resistance (Rc) to hot water (40°C) of less than or equal to 15 minutes and a resistance (Rf) to cold water (20°C) such that Rf - Rc ≥ 8 minutes. The invention also relates to a cosmetic care or make-up process for a keratinous material. The composition makes it possible to obtain a film which is resistant to cold water and which can be removed simply with hot water.